

Dedicated to protecting and improving the health and environment of the people of Colorado

Ms. Heather Grisham Pixel Velocity 3917 Research Park Dr. Suite B-1 Ann Arbor, MI 48108

May 17, 2017 - via electronic and United States Mail

Re: Approval of Request for Pixel Velocity's Fixed Automated Hydrocarbon Leak Detection System to be a continuous emission monitoring Approved Instrument Monitoring Method for Colorado Air Quality Control Commission (AQCC) Regulation No. 7 STEM and LDAR Requirements

Dear Ms. Grisham:

The Air Pollution Control Division (Division) reviewed Pixel Velocity's most recent application dated May 31, 2016 regarding request for approval of a proposed Approved Instrument Monitoring Method (AIMM) for purposes of AQCC Regulation No. 7 Storage Tank Emission Management (STEM) and Leak Detection and Repair (LDAR) requirements. That application, along with supplemental information provided to the Division via conference call with Pixel Velocity on June 22, 2016, and via email on June 30, 2016, February 23, 2017 and March 16, 2017, is sufficient for the Division to issue an approval letter. Therefore, the Division hereby approves the use of Pixel Velocity's Fixed Automated Hydrocarbon Leak Detection System (Pixel LDS) as a continuous emission monitoring AIMM with the additional conditions of approval, as outlined below.

AQCC Regulation No. 7, Section XVII.A.2 states that any AIMM approved by the Division must be capable of detecting leaks as defined in Section XVII.F.6. Please refer to Regulation No. 7, Section XVII.C.2.for the STEM requirements and Sections XVII.F.1. - XVII.F.7 for the LDAR requirements.

The Division determined the application and supplemental information submitted meets the minimum requirements for approval of the Pixel LDS as AIMM. The Division determined the Pixel LDS meets the Non-Quantitative Classification. Please review Regulation No. 7, Section XVII.F.6.c for Non-Quantitative requirements for terms of use under the classification.

As a result of your application review, the Division determined the following conditions of approval for the Pixel LDS also must be met to be covered by this approval letter:

- 1. The Pixel LDS shall be properly designed using Pixel Design Tools and methods to ensure all equipment and components subject to LDAR and/or STEM requirements at a facility are monitored by the Pixel LDS and any leaking or venting emissions are detectable at the minimum detection threshold specified in #2 below.
- 2. During the commissioning of the Pixel LDS at a facility, the Pixel LDS must be tuned to detect any leaking or venting emissions lasting equal to or greater than 10 seconds in duration and at a distance no greater than 40 feet from the closest monitoring point. This detection threshold shall remain fixed all of the time. The minimum monitoring distance



is based on the results of additional performance testing of the Pixel LDS as requested by the Division, which was completed on February 14, 2017 and accepted by the Division on March 16, 2017.

- 3. For designed systems using movable cameras (pan-and-tilt monitoring), each monitoring interval shall be at least one minute in duration.
- 4. If leaking or venting emissions detected by a Pixel LDS cannot be pinpointed using the Pixel LDS, the leaking or venting emissions source must be pinpointed by another approved AIMM, including but not limited to an optical gas imaging infrared (IR) Camera or EPA Reference Method 21.
- 5. The operator must follow the Operations and Maintenance plan, Pixel LDS maintenance schedule, and emission leak/vent tracking and recording procedures submitted to the Division in the application.
- 6. The operator or user of the Pixel LDS must be able to produce a copy of this letter for inspection by the Division or local agency personnel.
- 7. An operator and/or designated reseller of the Pixel LDS (as described in the application submitted to the Division) must complete training and/or certification required to operate and understand the Pixel LDS as specified in the application submitted to the Division.
- 8. Only the Pixel LDS is covered by this approval letter.
- 9. An owner or operator that elects to use the Pixel LDS as AIMM may apply to the Division for a streamlined inspection and reporting program for their operations subject to STEM and/or LDAR requirements.

For the facilities subject to Title V Operating Permit requirements: Division approved AIMM (other than infrared camera or EPA Method 21) must be documented within each Title V Operating Permit. A complete Title V modification application or revision to a previously submitted application must be submitted by any facility seeking to use the Pixel LDS prior to implementation.

Please note that the Division is making this determination based on a reliance on the validity and accuracy of the information that Pixel Velocity provided in its submittal. Please do not hesitate to contact me at 303-692-3144 or jennifer.mattox@state.co.us if you have any questions regarding this letter or would like to further discuss this approval. Thank you.

Sincerely,

Jennifer Mattox

Enforcement Supervisor, Oil and Gas Team Stationary Sources Program Colorado Air Pollution Control Division

APCD-SS-B1

Mr. Mark McMillan - APCD, via electronic mail Ms. Shannon McMillan - APCD, via electronic mail

